Spectris - Climate Change 2020

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Spectris' global group of businesses are focused on delivering value beyond measure for all our stakeholders. We target global, attractive and sustainable markets, where growth and high returns are supported by long-term drivers. Precision is at the heart of what we do. We provide customers with expert insight through our advanced instruments and test equipment, augmented by the power of our software and services. This equips customers with the ability to reduce time to market, improve processes, quality and yield. In this way, Spectris know-how creates value for our wider society, as our customers design, develop, test and manufacture their products to make the world a cleaner, healthier and more productive place. Headquartered in Egham, Surrey, United Kingdom, the Company employs approximately 9,000 people located in more than 30 countries. For more information, visit **www.spectris.com**.

Reporting period and comparative data

All reported data covers the period from January 1 to December 31, 2019 unless otherwise stated. We have corrected and restated the 2018 carbon footprint numbers this year. This is to correct an error relating to the under-reporting of vehicle travel emissions in 2018.

Organizational reporting boundaries

The 2019 carbon footprint includes data from all 13 operating companies. For the first time, the emission data from one of the operating companies, Concept Life Sciences ('CLS'), was included. The inclusion of Concept Life Sciences in the 2019 carbon footprint accounts for 3.6% of the 2019 Carbon footprint. Comparing the 2019 carbon footprint on a like-for-like basis with 2018 (i.e. excluding the addition of Concept Life Sciences) leads to an overall reduction of 4%.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2019	December 31 2019	Yes	2 years

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Australia
Austria
Belgium
Brazil
Canada
China
Denmark
Finland
France
Germany
India
Italy
Japan
Mexico
Netherlands
Norway
Poland
Portugal
Republic of Korea
Russian Federation
Singapore
South Africa
Spain
Sweden
Switzerland
Taiwan, Greater China
Thailand
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

GBP

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	The Chief Executive is responsible for developing and the successful achievement of Group objectives and strategy having regard to the Group's responsibilities to its shareholders, customers, employees and other stakeholders and therefore also objectives and strategy of climate-related issues. The CEO has ultimate responsibility for climate change issues including reputational risk to the organisation, having the necessary seniority and oversight to identify issues and drive action. The CEO considered, together with other Board members, the Group's climate change and environmental risk profile in December 2019. In addition, in light of the emerging focus on the Task Force on Climate Related Financial Disclosure ('TCFD'), several actions have been agreed to the additional disclosures by 2022 and support the TCFD requirements. These steps include: • using the improved data that has been collected since 2018 to consider the expansion of emissions reporting and the possibility of setting suitable environmental KPIs; • setting targets in collaboration with the Platforms to ensure the focus is beneficial to all parties; • peer benchmarking exercise of KPIs and consideration of the benefits of a publicly disclosed strategy on climate change; and • workshops with our businesses, facilitated by Ricardo, to establish how the Group can best assess the short-, medium- and long-term financial impacts of climate change.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding business plans Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	Climate-related issues are reviewed and discussed every quarter by the Board of directors. Climate change, environmental legislation, social issues, corporate responsibility and more are also all discussed by the Board as part of the corporate governance section of the board meeting. In December 2019 the Board undertook a detailed review of the findings of the Group's ESOS audits during 2019 and also reviewed the Group's preparedness for TCFD, Each operating company also reviews climate related risks as part of their risk processes and as part of the product development.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	<Not Applicable>	Assessing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Safety, Health, Environment and Quality committee	<Not Applicable>	Assessing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

The CEO has ultimate responsibility for climate change issues including reputational risk to the organisation, having the necessary seniority and oversight to identify issues and drive action. The CEO presents the paper on climate change issues to the board. In addition, each quarter the Health, Safety and Environment committee meet to look at the carbon footprint performance, areas for improvement and areas of high risk, etc. This is then discussed with the board of directors to ensure co-ordination and best practice throughout the group. This committee is made up of a representative from each operating company and led by the company secretary and business group director. This is to ensure issues can be identified at an operating company level and follow on actions can then be implemented in each of the operating companies. Management teams at each operating company are then responsible for the day to day operations of each business.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity inventivized	Comment
Board/Executive board	Monetary reward	Emissions reduction project Energy reduction project	Corporate social governance and environmental performance is a contributing factor when deciding the board's bonuses. The 2019 personal strategic objectives for the current Executive Board, which were set at the beginning of the year and which account for 25% of salary, cover a range of the Company's targeted strategic priorities. One of the strategic objectives of the CEO in FY2019 (worth 9% of his overall bonus) was to establish a clear approach to strengthening ESG in the Group's operating model.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	1	In line with best practice
Medium-term	1	3	In line with best practice
Long-term	3	100	In line with best practice

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

A substantive risk would equal a 15% impact on orders, sales or operating profit and is considered over a three year timeline in accordance with our Principal Risks calculation. However, in the development of our sustainability strategy in 2020 we are looking at a longer horizon of 10-15 years.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered
Direct operations
Upstream
Downstream

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Medium-term
Long-term

Description of process
Risks:
The Spectris approach to risk management incorporates both bottom-up and top-down elements to the identification, evaluation and management of risks and all risks are evaluated with reference to the Group's achievement of its strategic objectives. Our business units are required to undertake formal risk management reviews at least twice a year. This involves the use of a consistent framework for the assessment of significant risks with respect to impact, likelihood and the time frame in which the risk could materialise. Risks are assessed both before and after the effect of controls and mitigating actions have been taken into account. Overall ownership for each risk, together with responsibility for mitigating actions, is clearly assigned and communicated. The resulting risk registers are then subject to review on an ongoing basis as part of regular operational reviews. This ensures that risk management is embedded in day-to-day management processes and decision-making as well as in the annual strategic planning cycle. In addition, the Executive Committee and key functional personnel in the Group consider those risks to the Group's strategic objectives which are not addressed within the business units and develop appropriate approaches to managing and mitigating these.

These key Group risks are analysed against a 'lines of defence' framework which involves mapping the principal Group risks to: a first line of defence comprising the key controls and sources of risk mitigation implemented by our business units; a second line of defence consisting of various Group functions which, together with the Executive Directors, shapes the policy framework within which the first line of defence operates and provides oversight and monitoring of the same; and a third line of defence identifying sources of assurance over the effectiveness of risk management activity. The overall effectiveness of the Group's risk management and mitigation processes is reviewed regularly by the Executive Directors and twice yearly by the Audit and Risk Committee. A formal evaluation of the Group's risk appetite has also been completed in respect of each of the Group's principal risks. Climate change matters are included in this risk management process where potential or actual material risks are identified either at group or operating company level. There are clear and obvious climate change related opportunities for Spectris in the design and delivery of its goods and services to its customers. This is addressed in each operating company's overall business strategy where focus on innovation is one of five key elements which drives the group's activities.

Opportunities:

The Spectris approach to managing climate-related opportunities is currently being looked at as part of the organisations business strategy. The board currently has overall responsibility for sustainability risks and opportunities, but the day-to-day management is done at operating company level with the executive board challenging or supporting initiatives and promoting cross-company action. Risks and opportunities identified by operating companies are revised on an ongoing basis by the board and compared against the group's sustainability framework. Solar panels have been identified as an opportunity to move to greener renewable energy and potentially over time become a net provider to the grid. Malvern PANalytical, the operating company that identified this opportunity, last year installed solar panels at its Malvern site which will produce 500,000 kWh of electricity a year. Spectris are also using independent third-party energy reduction audits required as part of ESOS to identify opportunities. ESOS is the UK implementation of Article 8 of the EU Energy Efficiency Directive. The Operating companies will then use these audits as the basis for energy reduction programmes.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	The described Spectris risk management processes include consideration of current regulations.
Emerging regulation	Relevant, always included	The described Spectris risk management processes include consideration of potential or emerging regulations.
Technology	Relevant, always included	The described Spectris risk management processes include consideration of technology developments and changes.
Legal	Relevant, always included	The described Spectris risk management processes include consideration of legal developments and changes.
Market	Relevant, always included	The described Spectris risk management processes include consideration of market developments and changes.
Reputation	Relevant, always included	The described Spectris risk management processes include consideration of reputation matters.
Acute physical	Relevant, sometimes included	The described Spectris risk management processes include consideration of these matters where it is appropriate to do so.
Chronic physical	Relevant, sometimes included	The described Spectris risk management processes include consideration of these matters where it is appropriate to do so.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?
No

C2.3b

(C2.3b) Why do you not consider your organization to be exposed to climate-related risks with the potential to have a substantive financial or strategic impact on your business?

	Primary reason	Please explain
Row 1	Risks exist, but none with potential to have a substantive financial or strategic impact on business	Spectris is a holding company with a decentralised business model. Each of our ten operating companies has an entirely discreet and varied product range, each product has its own supply chain and customer base. No one company, product or supply chain is material to the group. Each operating company is also decentralised geographically with operations across 33 countries. As such there is no one material product, supply chain or operating company that can create a substantive financial or strategic impact on the group as a whole based on climate-related risks or other risks. Climate related risk would need to impact at least 15% of our overall business to be considered a substantive risk in line with our other principal risks. However, we are reviewing climate change scenarios as part of our preparations for TCFD and also considering a rise in sea levels on our properties to test this approach.

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

Spectris supplies productivity-enhancing instrumentation and controls used to monitor and control research and manufacturing processes, and to reduce the environmental impact for customers in a wide range of industries. Our products help our clients become more sustainable, both economically and environmentally, because they are designed to improve productivity, reduce waste and save time, money and resources, including reducing power consumption. This is a virtuous circle: our products make a significant contribution to the achievement of a lower carbon world, and these products, in turn, drive our own economic success and future growth.

In energy-intensive industries such as cement and steel production, our materials analysis instruments help drive efficiencies by optimising the shape and size of the raw material particles. This can generate substantial reductions in energy use and hence carbon emissions.

Our gas analysis products can measure pollutants, enabling combustion processes to be optimised, thereby reducing greenhouse gas emissions generated by industrial processes. This helps ensure compliance with environmental legislation and often forms part of certification testing. For example, power stations can save anything between 1% and 5% of their fuel costs by improving combustion efficiency, which means less energy wasted, less use of natural resources and lower emissions. Around the world, our carbon management service is helping airports to accurately measure and understand the carbon emissions from their operations. Our technology is also being used in the automotive industry to design and test electric and hybrid vehicles and to develop more fuel-efficient engines which will emit fewer particulates, and we offer independent testing facilities for measuring vehicle emissions and fuel consumption

A number of operating company products are critical to the development, manufacture and maintenance of renewable energy generation technologies such as wind turbine generators and solar panels.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

163000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

At least 1/10th of our sales relate to products that allow our customers to expand their low emission goods and services.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation
Through our operating companies we work with customers to provide innovative design, research and development to create solutions to lower emissions. Examples of the work are available here https://www.hbm.com/en/8314/emobility-test-center/

Comment
We expect the potential impact figure to be higher and we are currently creating a lens through which to grade our products on their sustainability, which will include their position impact on emissions.

Identifier
Opp2

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of more efficient production and distribution processes

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
Resource efficiency represents a significant opportunity for the Group. The COVID crisis has accelerated our digital transformation and we are targeting a 75% permanent reduction in travel emissions from 2020. Digitalisation has also allowed us to move many of our employees to flexible working and we will reduce our property footprint by 25% by the end of 2021 which will significantly improve our resource efficiency. Our remaining offices and sites are subject to a 3-stage environmental review to limit energy use and emissions, including the move to renewable energy sources wherever available and the application of architectural film to limit energy use.

Time horizon
Short-term

Likelihood
Virtually certain

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
20000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Cost saving of ending leases and building costs savings and a permanent reduction in travel costs – as announced to the market in July 2020.

Cost to realize opportunity
1000000

Strategy to realize opportunity and explanation of cost calculation
A concentrated review is currently being undertaken with all offices with less than 5 people to be closed with onerous leases paid (calculation above includes onerous leases). The Group is currently onboarding the energy management system which will support the 3 stage approach to the environmental review of each remaining facility, this forms the remainder of the costs.

Comment

Identifier
Opp3

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Energy source

Primary climate-related opportunity driver
Use of lower-emission sources of energy

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
We are actively reviewing the energy source of all our buildings. Where that building is freehold we are taking the opportunity to add solar panels to act as the main source of energy. As we grow our experience in this area we are forming an approach to how to accelerate this change to solar energy. In 2019 we implemented this solution at the main Malvern Panalytical site in the UK, In 2020, we launched a new solar park at our site in Eindhoven which consists of 1800 panels and will yield approximately 500 Mwh per year which is 1/3 of the need in MP in Eindhoven and 147 times the annual requirement of an average family. As we grow our experience in this area we are forming an approach to how to accelerate this change to solar energy.

Time horizon
Short-term

Likelihood

Virtually certain

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The financial impact figure cannot be quantified, since we are currently still reviewing the energy sources and opportunities for all of our buildings and the estimation depends on the outcome of this review.

Cost to realize opportunity
0

Strategy to realize opportunity and explanation of cost calculation
We are actively reviewing the energy source of all our buildings. Where that building is freehold we are taking the opportunity to add solar panels to act as the main source of energy. In 2019 we implemented this solution at the main Malvern Panalytical site in the UK, In 2020, we launched a new solar park at our site in Eindhoven which consists of 1800 panels and will yield approximately 500 Mwh per year which is 1/3 of the need in MP in Eindhoven and 147 times the annual requirement of an average family. As we grow our experience in this area we are forming an approach to how to accelerate this change to solar energy.

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?
Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?
No, but we anticipate using qualitative and/or quantitative analysis in the next two years

C3.1c

(C3.1c) Why does your organization not use climate-related scenario analysis to inform its strategy?

The group's strategy currently focuses on more predictable factors to drive its business such as the expected increase in demand for types of vehicle emission services and the market for wind power turbines. Climate-related scenario analysis does not currently provide predictable outcomes. However, Spectris is currently working to comply with TCFD by the end of 2022 at the latest. A key part of this compliance will include testing against at least two climate change scenarios which will include 1.5c and 2c. Following the completion of this work it is intended to build our modelling into our R&D and business investment cases.

C3.1d

(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Many of the goods and services provided by the group's operating companies assist customers with reducing emissions produced by their products. This is a virtuous circle: our products make a significant contribution to the achievement of a lower carbon world, and these products, in turn, drive our own economic success and future growth. To give an example of one of the climate-related market opportunities. We still see robust demand for the development of electric, hybrid and connected and autonomous vehicles ('CAV') globally, as well as continued developments to internal combustion engines, driven by the growing need to reduce GHG emissions. These technologies are also requiring new tests. For example, the lack of engine noise from EVs is driving demand for new, minimum sound level testing and driving demand for our simulators and eDrive products. These developments have resulted in both the simulators and eDrive products being focus growth areas for one of the operating companies HBK into 2020 and beyond.
Supply chain and/or value chain	Yes	Spectris has many loyal and committed suppliers who are integral to our business. Our business is changing rapidly as we seek greater competitive advantage through efficiency gains and innovation, in our products and how we work, whilst addressing new regulatory requirements and expectations from commercial and social stakeholders and shareholders. Focusing on supply chain management is essential if we are to achieve this. Spectris' objective is to build long-term shareholder value sustainably by supplying productivity-enhancing solutions and services for our customers. To achieve this we need a global high-performance supply chain.
Investment in R&D	Yes	Spectris provides leading instrument and sensor technology alongside complementary software and services. Our technologies reflect strong intellectual property, underpinned by investment in R&D. Through our products we help our clients become more sustainable, both economically and environmentally, because they are designed to improve productivity, reduce waste and save time, money and resources, including reducing power consumption. We can see how value is being delivered in our key end markets, where there is rapid change underway. In automotive for instance, new hybrid, electric and autonomous technologies are rapidly being developed, and safety, environmental and sustainability concerns are driving lower emissions, yield improvements. Each advance in technology, or tightening of regulations, or certifications sets new challenges for measurement, data gathering, modelling, simulation and interpretation. As such, the demand for data, analytics and insights continues to grow. In turn, this is driving the need for more sensors and instruments, with greater levels of sensitivity and accuracy, and more integrated software and services, including predictive and prognostic analytics. This is the space where Spectris is going to build and grow on the short- and medium-term. We are harnessing the power of precision measurement to equip our customers to make the world cleaner, healthier, and more productive. We invest in innovating our products to ensure we provide our customers with specialist insight.
Operations	Yes	The group's operating companies have a constant focus on operating cost efficiency. An example of this is the use of energy where the group seeks to mitigate potentially higher costs through applying technology and better procedures to reduce energy usage. Reducing our electricity consumption will be a further area of focus on the short- and long-term as this will have both environmental and financial benefits. The focus on digitalisation has allowed us to move many of our employees to flexible working and we will reduce our property footprint by 25% by the end of 2021 which will significantly improve our resource efficiency. Our remaining offices and sites are subject to a 3-stage environmental review to limit energy use and emissions, including the move to renewable energy sources wherever available and the application of architectural film to limit energy use.

C3.1e

(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Capital expenditures Capital allocation Acquisitions and divestments	Revenues: Many of the operating company products and services assist customers with addressing the emissions and climate change issues associated with their products. Projected customer demand for these products and services is including in operating company and group financial planning. At least 1/10th of our sales relate to products that allow our customers to expand their low emission goods and services. Operating costs: Operating costs financial planning is required to take into account potentially higher energy costs and costs incurred by increased environmental regulation at operating company and group level. Capital expenditures / capital allocation: Capital expenditure planning in some instances is required to take into account the requirements of increased environmental regulation. Acquisitions and divestments: Recent group acquisitions, notably Millbrook, deliver a range of products and services to support their customers in addressing the environmental and emissions impacts of their products.

C3.1f

(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

Increased and anticipated environmental regulation requires operating company in some instances to plan for increased costs to ensure compliance.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

No target

C4.1c

(C4.1c) Explain why you did not have an emissions target, and forecast how your emissions will change over the next five years.

	Primary reason	Five-year forecast	Please explain
Row 1	No instruction from management	It is forecast that the Group's overall emissions profile will decrease by over a third over the next five years	The Group's strategy for profitable growth was published in June 2019 and set out the planned disposal of certain businesses. These businesses have a disproportionately high impact on the Group's overall emissions profile and therefore it is forecast that there will be a significant decrease in the Group's GHG emissions over the next five years. When combined with changes in working patterns and the efficiencies realized through digitalization during the COVID pandemic, it is forecast that the Group's overall emissions profile will decrease by over a third over the next five years and suitable targets will be set as part of the sustainability strategy that will be published in early 2021.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

No other climate-related targets

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*	1	3549
Implementation commenced*		
Implemented*	3	5987
Not to be implemented		

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Low-carbon energy consumption	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

88

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

18744

Investment required (unit currency – as specified in C0.4)

152607

Payback period

11-15 years

Estimated lifetime of the initiative

21-30 years

Comment

We are actively reviewing the energy source of all our buildings. Where that building is freehold we are taking the opportunity to add solar panels to act as the main source of energy. In 2019 we implemented this solution at the main Malvern Panalytical site in the UK generating 213 MWh in 2019. In 2020, we launched a new solar park at our site in Eindhoven which consists of 1800 panels and will yield approximately 500 Mwh per year which is 1/3 of the need in MP in Eindhoven and 147 times the annual requirement of an average family. As we grow our experience in this area we are forming an approach to how to accelerate this change to solar energy.

Initiative category & Initiative type

Other, please specify	Other, please specify (Office Consolidation)

Estimated annual CO2e savings (metric tonnes CO2e)
3413

Scope(s)
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
845000

Investment required (unit currency – as specified in C0.4)
0

Payback period
4-10 years

Estimated lifetime of the initiative
Ongoing

Comment
A concentrated review is currently being undertaken with all offices with less than 5 people to be closed with onerous leases paid (calculation above includes onerous leases). In addition, the Group is currently onboarding the energy management system which will support the 3 stage approach to the environmental review of each remaining facility. The annual monetary savings calculation is based on lease costs and facilities costs of sites caught by the consolidation, including utility costs.

Initiative category & Initiative type

Transportation	Business travel policy

Estimated annual CO2e savings (metric tonnes CO2e)
2486

Scope(s)
Scope 3

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
17500000

Investment required (unit currency – as specified in C0.4)
0

Payback period
<1 year

Estimated lifetime of the initiative
Ongoing

Comment
Scope 3 emissions decreased by 6% in 2019, predominantly as a result of reduced staff travel. The implementation of the Group's travel policy has contributed to the significant decrease of the scope 3 emissions. All flights for employees below the Executive team were required to be economy unless medically exempt.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	An example is Article 8 of the EU Energy Efficiency Directive which was enacted in the UK by the mandatory energy assessment scheme or "ESOS". Independent third-party energy reduction opportunity audits have taken place and identified areas for improvement.
Other (Cost control programmes)	Cost control programmes at the operating companies naturally focus on matters such as the reduction of energy and related costs.
Other (Three stage environmental review of our properties)	The Group is currently onboarding the energy management system which will support a 3 stage approach to the environmental review of each remaining facility. This programme will review alternative energy options and implement wherever possible, use architectural films to maximise efficiency and establish local “green teams” to set waste management strategies.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?
Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation
Company-wide

Description of product/Group of products
Spectris supplies productivity-enhancing instrumentation and controls used to monitor and control research and manufacturing processes, and to reduce the environmental impact for customers in a wide range of industries. Our products help our clients become more sustainable, both economically and environmentally, because they are designed to improve productivity, reduce waste and save time, money and resources, including reducing power consumption. This is a virtuous circle: our products make a significant contribution to the achievement of a lower carbon world, and these products, in turn, drive our own economic success and future growth.

In energy-intensive industries such as cement and steel production, our materials analysis instruments help drive efficiencies by optimising the shape and size of the raw material particles. This can generate substantial reductions in energy use and hence carbon emissions.

Our gas analysis products can measure pollutants, enabling combustion processes to be optimised, thereby reducing greenhouse gas emissions generated by industrial processes. This helps ensure compliance with environmental legislation and often forms part of certification testing. For example, power stations can save anything between 1% and 5% of their fuel costs by improving combustion efficiency, which means less energy wasted, less use of natural resources and lower emissions. Around the world, our carbon management service is helping airports to accurately measure and understand the carbon emissions from their operations. Our technology is also being used in the automotive industry to design and test electric and hybrid vehicles and to develop more fuel-efficient engines which will emit fewer particulates, and we offer independent testing facilities for measuring vehicle emissions and fuel consumption

A number of operating company products are critical to the development, manufacture and maintenance of renewable energy generation technologies such as wind turbine generators and solar panels.

Are these low-carbon product(s) or do they enable avoided emissions?
Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Other, please specify (Companies own work.)

% revenue from low carbon product(s) in the reporting year
10

% of total portfolio value
<Not Applicable>

Asset classes/ product types
<Not Applicable>

Comment
The % of revenue from low carbon products is anticipated to be in the range of 10% of Group's products, but this number was not calculated.

The Group is currently agreeing a methodology to classify the sustainability of its products and solutions. This will register the emissions impact of products and solutions with reference to a confirmed taxonomy.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start
January 1 2014

Base year end
December 31 2014

Base year emissions (metric tons CO2e)
10380

Comment
The first year Spectris reported its greenhouse gas emissions

Scope 2 (location-based)

Base year start
January 1 2014

Base year end
December 31 2014

Base year emissions (metric tons CO2e)
35210

Comment
The first year Spectris reported its greenhouse gas emissions.

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
Not applicable

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
Other, please specify (UK Government Conversion Factors for Company Reporting 2019)

C5.2a

(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

These emission conversion factors can be used to report on 2019 greenhouse gas emissions by UK based organisations of all sizes, and for international organisations reporting on UK operations.

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
16071

Start date
January 1 2019

End date
December 31 2019

Comment
Scope 1 emissions increased by 17% partly due to an increase in vehicle travel emissions and also as a result of the inclusion of the data from the operating company Concept Life Sciences. This increase is partly due to improved reporting of vehicle travel in 2019

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)
13738

Start date
January 1 2018

End date
December 31 2018

Comment
Please note that the 2018 Carbon Footprint numbers have be corrected and restated in 2019. This is to correct an error relating to the under-reporting of Vehicle Travel emissions in 2018.

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)
14112

Start date
January 1 2017

End date
December 31 2017

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We have operations where we are able to access electricity supplier emission factors or residual emissions factors, but are unable to report a Scope 2, market-based figure

Comment
Currently we are unable to report the scope 2 market-based figures as the data was not calculated yet.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
36669

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2019

End date
December 31 2019

Comment
Scope 2 emissions decreased by 2% despite an increase in electricity consumption in 2019. This is due to the annual change in emission factors which takes into account changes such as the grid decarbonisation. Reducing our electricity consumption will be a further area of focus.

Past year 1

Scope 2, location-based
37425

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2018

End date
December 31 2018

Comment
Please note that the 2018 Carbon Footprint numbers have be corrected and restated in 2019.

Past year 2

Scope 2, location-based
35940

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2017

End date
December 31 2017

Comment

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?
No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Spectris is a holding company with a decentralised business model. Each of our ten operating companies has an entirely discreet and varied supply chain. This business structure increases the complexity for the collection and calculation of these emissions, therefore these emissions are not calculated yet.

Capital goods

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
This is relevant but is not feasible/ possible to calculate

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status
Relevant, calculated

Metric tonnes CO2e
7269

Emissions calculation methodology
Greenhouse Gas Protocol and UK Government Conversion Factors for Company Reporting 2019.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Fuel-and-energy-related activities emissions include Electricity T&D losses and WTT, Gas WTT, Oil WTT, Other Fuels WTT

Upstream transportation and distribution

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
This data is currently not available.

Waste generated in operations

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
The data is currently not available. We continue to assimilate waste data relating to our sites including landfill, incineration and recycling and we will continue to focus on refining and improving reporting of waste data during 2020.

Business travel

Evaluation status
Relevant, calculated

Metric tonnes CO2e
22527

Emissions calculation methodology
All travel is managed through Amex who provide data

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain

Employee commuting

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Employee commuting is not considered to be a significant source of emissions as most of our offices are local offices.

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Spectris don’t have any leased assets.

Downstream transportation and distribution

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
The data is currently not available.

Processing of sold products

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
The data is currently not available.

Use of sold products

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
The data is currently not available.

End of life treatment of sold products

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
The data is currently not available.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Spectris don't have any leased assets.

Franchises

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Spectris is not involved in franchise arrangements

Investments

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Spectris does not hold investments

Other (upstream)

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

Other (downstream)

Evaluation status
Not evaluated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

C-CG6.6

(C-CG6.6) Does your organization assess the life cycle emissions of any of its products or services?

	Assessment of life cycle emissions	Comment
Row 1	No, but we plan to start doing so within the next two years	As part of our new environmental strategy, the Group will be testing products at the Group's three platforms, HBK, Malvern Panalytical and Omega to understand their life cycle emissions during 2021 as part of the establishment of an ongoing programme of testing.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
32.3

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
52740

Metric denominator
unit total revenue

Metric denominator: Unit total
1632000000

Scope 2 figure used
Location-based

% change from previous year
0.4

Direction of change
Increased

Reason for change
The increase in intensity figure is predominantly due to increase in scope 1 emissions sources this year. Scope 1 emissions increased by 17% partly due to an increase in vehicle travel emissions and also as a result of the inclusion of the carbon emission data from the operating company Concept Life Sciences for the first time in 2019. This increase is partly due to improved reporting of vehicle travel in 2019. Scope 2 emissions decreased by 2% despite an increase in electricity consumption in 2019. Figure is reported in metric tonnes CO2e / £m.

Note that the % change from previous year was calculated with the corrected 2018 Carbon Footprint numbers, therefore the intensity figure from FY2018 used for comparison in the 2020 questionnaire differs from the intensity figure included in the 2019 questionnaire.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?
Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	14526.7	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	13.9	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	129.7	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	1400.6	IPCC Fourth Assessment Report (AR4 - 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Australia	68
Austria	239
Belgium	30
Brazil	4
Canada	538
China	159
Denmark	15
Finland	25
France	349
Germany	1.571
Italy	183
Japan	45
Mexico	97
Netherlands	754
Norway	0
Poland	5
Portugal	29
Russian Federation	3
Singapore	6
South Africa	80
Republic of Korea	219
Spain	64
Sweden	71
Switzerland	708
Taiwan, Greater China	15
Thailand	0
United Arab Emirates	42
United Kingdom of Great Britain and Northern Ireland	8.325
United States of America	2.428
India	0

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Brüel & Kjaer Vibro	131
BTG	660
ESG Solutions	1091
HBK	1310
Malvern PANalytical	7240
Millbrook Proving Ground	3249
NDC Technologies	54
Omega	432
Particle Measuring Systems	590
Red Lion Controls	177
Servomex	555
Spectris	451
Concept Life Science	128

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Australia	89		122.67	
Austria	7		46.48	
Belgium	21		124.28	
Brazil	26		231.67	
Canada	166		1182.78	
China	5.222		12214.25	
Denmark	739		3883.59	
Finland	639		6082.63	
France	13		202.09	
Germany	10.616		20144.57	
India	139		205.32	
Italy	82		257.68	
Japan	307		599.26	
Mexico	16		39.55	
Netherlands	2.722		6233.74	
Norway	1		130.18	
Poland	0		3	
Portugal	40		113.53	
Russian Federation	18		52.22	
Singapore	103		265.5	
South Africa	60		67.17	
Republic of Korea	211		399.27	
Spain	17		62.37	
Sweden	13		1758.22	
Switzerland	136		4782.12	
Taiwan, Greater China	157		256.24	
Thailand	9		19.88	
United Arab Emirates	4		8.37	
United Kingdom of Great Britain and Northern Ireland	7.112		27874.29	
United States of America	7.982		19005.29	
Romania	1		3.63	

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Brüel & Kjaer Vibro	178	
BTG	862	
ESG Solutions	111	
HBK	12331	
Malvern PANalytical	3902	
Millbrook Proving Ground	4362	
NDC Technologies	612	
Omega	3675	
Particle Measuring Systems	669	
Red Lion Controls	1022	
Servomex	671	
Spectris	6187	
Concept Life Science	2089	

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	88	Decreased	0.2	Solar panels generated 213MWh in 2019, which has resulted in a decrease of 88 tCO2e. The total scope 1 and 2 emissions in the previous year was 51163 tCO2e. Therefore we arrived at -0.2% through (88/51163)*100=-0.2%
Other emissions reduction activities	2845	Decreased	5.6	In 2019, the emissions associated with electricity consumption decreased by 2845tCO2e in total compared to 2018. This is due to the annual change in emission factors which takes into account changes such as the grid decarbonisation and the reduction activities such as office consolidation. The total scope 1 and 2 emissions in the previous year was 51163 tCO2e. Therefore we arrived at -5.6% through (2845/51163)*100=-5.6%
Divestment		<Not Applicable>		
Acquisitions	2217	Increased	4.3	The key driver of the increase was the inclusion of data relating to the acquisition of Concept Life Sciences ('CLS'), this resulted in the addition of 12 offices and over 600 people. Following the announcement in 2019 that this business would be integrated into the Malvern Panalytical platform, work has been undertaken to streamline the footprint of the business which will be evident in the emissions for 2020. The scope 1 and 2 emissions of the operating company CLS were in total 2217 tCO2e in 2019. The total scope 1 and 2 emissions in the previous year was 51163 tCO2e. Therefore we arrived at +4.3% through (2217/51163)*100=4,3%
Mergers		<Not Applicable>		
Change in output		<Not Applicable>		
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other	2205	Increased	4.3	The increase in scope 1 emissions between 2018 and 2019 is mainly due to improved reporting of vehicle travel in 2019. Global reporting improved significantly due to the introduction of the mandatory use of the AMEX system to book all Global travel which allows a 100% capture of this data. The emissions associated with vehicle miles (scope 1) has increased by 2205tCO2e between 2018 and 2019. The total scope 1 and 2 emissions in the previous year was 51163 tCO2e. Therefore we arrived at +4.3% through (2205/51163)*100=4,3%

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?
Location-based

C-CG7.10

(C-CG7.10) How do your total Scope 3 emissions for the reporting year compare to those of the previous reporting year?
Decreased

C-CG7.10a

(C-CG7.10a) For each Scope 3 category calculated in C6.5, specify how your emissions compare to the previous year and identify the reason for any change.

Fuel and energy-related activities (not included in Scopes 1 or 2)

Direction of change
Increased

Primary reason for change
Other, please specify (Inclusion of CLS data (acquisition) and reduction in oil, gas and other fuel consumption)

Change in emissions in this category (metric tons CO2e)
429

% change in emissions in this category
1.4

Please explain
The scope 3 emissions associated with fuel and energy related activities increased by 493tCO2e due to the inclusion of the emission data from the operating company Concept Life Sciences. However, the scope 3 emissions associated with fuel and energy related activities also decreased slightly (64tCO2e) due to the decrease of oil, gas and other fuel consumption. Therefore the total scope 3 emission increase associated with fuel and energy related activities is 429tCO2e. The total scope 3 emissions in the previous year was 31699 tCO2e. Therefore we arrived at +1.4% through (429/31699)*100=+1.4%

Business travel

Direction of change
Decreased

Primary reason for change
Other, please specify (Reduced staff travel)

Change in emissions in this category (metric tons CO2e)
2331

% change in emissions in this category
7.4

Please explain
The scope 3 emissions associated with business travel decreased by 2331 tCO2e. The total scope 3 emissions in the previous year was 31699 tCO2e. Therefore we arrived at -7.4% through (2331/31699)*100=-7.4%

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?
More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	11882	11882
Consumption of purchased or acquired electricity	<Not Applicable>	0	89931	89931
Consumption of purchased or acquired heat	<Not Applicable>	0	272	272
Consumption of purchased or acquired steam	<Not Applicable>	0	16171	16171
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	213	<Not Applicable>	213
Total energy consumption	<Not Applicable>	213	106374	106587

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)
Natural Gas

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
9134

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
0.18385

Unit
kg CO2e per KWh

Emissions factor source
UK Govement 2019 Conversion Factors

Comment

Fuels (excluding feedstocks)
Fuel Oil Number 1

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
2687

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
0.26782

Unit
kg CO2e per KWh

Emissions factor source
UK Govement 2019 Conversion Factors

Comment

Fuels (excluding feedstocks)
Aviation Gasoline

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
32.8

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
2.54306

Unit
kg CO2e per liter

Emissions factor source
UK Govement 2019 Conversion Factors

Comment

Fuels (excluding feedstocks)
Gas Oil

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
9.9

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
2.75821

Unit
kg CO2e per liter

Emissions factor source
UK Govement 2019 Conversion Factors

Comment

Fuels (excluding feedstocks)
Wood Pellets

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
20.4

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Emission factor
0.01563

Unit
kg CO2e per KWh

Emissions factor source
UK Govement 2019 Conversion Factors

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	213	213	213	213
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C-CG8.5

(C-CG8.5) Does your organization measure the efficiency of any of its products or services?

	Measurement of product/service efficiency	Comment
Row 1	No, but we plan to start doing so within the next two years	We do not do this currently, but we do plan to measure a sample of the products produced in our platforms during 2021 to begin to determine a methodology to support the sustainable design of our products

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description
Other, please specify (Energy efficiency)

Metric value
72

Metric numerator
MWh per £m revenue

Metric denominator (intensity metric only)
MWh per £m revenue

% change from previous year
9

Direction of change
Increased

Please explain
In 2019, energy use per £m revenue increased by 9% compared to 2018. This is due to an increase in total energy consumption, partly as a result of the inclusion of Concept Life Sciences ('CLS') for the first time.

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	Spectris provides leading instrument and sensor technology alongside complementary software and services. Our technologies reflect strong intellectual property, underpinned by investment in R&D. Through our products we help our clients become more sustainable, both economically and environmentally, because they are designed to improve productivity, reduce waste and save time, money and resources, including reducing power consumption. We can see how value is being delivered in our key end markets, where there is rapid change underway. In automotive for instance, new hybrid, electric and autonomous technologies are rapidly being developed, and safety, environmental and sustainability concerns are driving lower emissions, yield improvements. Each advance in technology, or tightening of regulations, or certifications sets new challenges for measurement, data gathering, modelling, simulation and interpretation. As such, the demand for data, analytics and insights continues to grow. In turn, this is driving the need for more sensors and instruments, with greater levels of sensitivity and accuracy, and more integrated software and services, including predictive and prognostic analytics. This is the space where Spectris is going to build and grow. We are harnessing the power of precision measurement to equip our customers to make the world cleaner, healthier, and more productive. We invest in innovating our products to ensure we provide our customers with specialist insight.

C-CG9.6a

(C-CG9.6a) Provide details of your organization's investments in low-carbon R&D for capital goods products and services over the last three years.

Technology area
Electromobility components

Stage of development in the reporting year
Large scale commercial deployment

Average % of total R&D investment over the last 3 years
21 - 40%

R&D investment figure in the reporting year (optional)
26000000

Comment
Millbrook has opened its Battery Test Facility in 2019, strengthening its position as one of the industry leaders providing independent battery testing to the automotive industry worldwide. The facility is the UK's latest, and biggest, private investment in independent battery testing. It consists of 12 battery cycling climatic chambers and supporting infrastructure. Battery development is now firmly established at the forefront of automotive research and development, as it's a key enabler to meet upcoming CO2 and emissions regulations. Millbrook has outstanding specialist capabilities in the field of battery testing, and it has reacted rapidly to increasing customer demand with the expansion of its facilities. The battery test chambers can cycle complete automotive battery packs up to 1,100V and up to 750kW in temperatures from -40°C to +90°C, including simulation of rapid temperature changes. In 2019 a further investment was made in the Millbrook California Electric Propulsion System Test Facility to build 4 test cells to support Nio.

Total investment made in the UK and California was £26m.

Technology area
Electromobility components

Stage of development in the reporting year
Applied research and development

Average % of total R&D investment over the last 3 years
Please select

R&D investment figure in the reporting year (optional)

Comment
Malvern Panalytical instruments help customers control the quality and function of battery materials, to enhance battery performance and improve the cycle life. For example, a partnership was established with the Next-Generation Energy Conversion and Storage Technologies Lab at the University of Pittsburgh's Energy Innovation Center to monitor the chemistry of what is happening inside a battery while it is in use, which could provide opportunities for identifying new materials as well as improving the battery itself.

Technology area
Renewable energy

Stage of development in the reporting year
Large scale commercial deployment

Average % of total R&D investment over the last 3 years
≤20%

R&D investment figure in the reporting year (optional)
400000

Comment
We have world-leading expertise in providing solutions for customers involved in renewable energy generation. 2019 saw our operating company HBK significantly updating and standardising its range of optical sensors, which are ideal for carrying out strain, tilt, temperature and acceleration tests. The newLight sensors are suitable for structural health monitoring used for highly stressed structures, like composite materials in wind turbines. Therefore, our measurement technology is used in the research and development of new materials, helping to identify mechanical stress on wind turbine components at an early stage in order to extend their lifecycle and improve safety. We also provide systems to monitor turbine performance remotely, ensuring that they are set up correctly for optimum performance and that preventive maintenance can be scheduled where required. This minimises wear and tear, prevents damage and optimises efficiency, saving both time and money.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Spectris - Assurance Statement 2019.pdf

Page/ section reference
Ricardo Energy & Environment has been working with Spectris Plc to independently assure their carbon footprint for 2019. This statement summarises the outcome of the review.

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Spectris - Assurance Statement 2019.pdf

Page/ section reference
Ricardo Energy & Environment has been working with Spectris Plc to independently assure their carbon footprint for 2019. This statement summarises the outcome of the review.

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category
Scope 3: Business travel

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Spectris - Assurance Statement 2019.pdf

Page/section reference
Ricardo Energy & Environment has been working with Spectris Plc to independently assure their carbon footprint for 2019. This statement summarises the outcome of the review.

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 3 category
Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Spectris - Assurance Statement 2019.pdf

Page/section reference
Ricardo Energy & Environment has been working with Spectris Plc to independently assure their carbon footprint for 2019. This statement summarises the outcome of the review. This assurance includes Scope 3 electricity T&D losses and WTT, Gas WTT, Oil WTT, Other Fuels WTT calculated by third party

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C8. Energy	Energy consumption	ISO 14064-3	Ricardo Energy & Environment has been working with Spectris Plc to independently assure their carbon footprint for 2019. This statement summarises the outcome of the review. Spectris - Assurance Statement 2019.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?
No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?
No

C11.3

(C11.3) Does your organization use an internal price on carbon?
No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
Yes, our customers
Yes, other partners in the value chain

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement
Collaboration & innovation

Details of engagement
Other, please specify (Developing high-quality products and services for, and in conjunction with, customers, to equip them to maximise productivity and operational efficiency to utilise less energy and raw materials)

% of customers by number
100

% of customer - related Scope 3 emissions as reported in C6.5

Portfolio coverage (total or outstanding)
<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement
We ensure that all of our customers get the measurements and insights they need to maximise productivity and operational efficiency to utilise less energy and raw materials.

Impact of engagement, including measures of success
We work closely with our customers to develop solutions to make a cleaner, healthier and more productive world. This results in cleaner processes (such as electric vehicles and wind technology) which support climate related issues.

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

We have an open and constructive dialogue with our supply chain on their own footprint and practices and we have harnessed Group-wide contracts with Amex (travel) and Geodis (delivery) to allow us to actively track and report Scope 3 emissions. This has led to efficiencies in air travel emissions and consolidated deliveries to improve our footprint.

We also actively foster partnerships and collaborations with academia to further expand the value we provide to customers. For instance, Malvern Panalytical instruments help customers control the quality and function of battery materials, to enhance battery performance and improve the cycle life. A partnership was established with the Next-Generation Energy Conversion and Storage Technologies Lab at the University of Pittsburgh's Energy Innovation Center to monitor the chemistry of what is happening inside a battery while it is in use, which could provide opportunities for identifying new materials as well as improving the battery itself. Malvern Panalytical instrument continues to actively foster partnerships and collaborations with academia to further expand the value it provides to customers.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?
No

C12.3g

(C12.3g) Why do you not engage with policy makers on climate-related issues?

As a decentralised Group we do not have sufficient presence in any country or any links with policy makers through our work to directly influence climate-related policies. However, in line with our company purpose of creating a cleaner, healthier and more productive world, we partner with our customers to create market leading solutions to counter climate change. (see question 8.5 for further details).

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In mainstream reports

Status
Complete

Attach the document
annual-report-2019.pdf

Page/Section reference
Page 19 (financial and non-financial key performance indicators); page 48, 49, 52 (Sustainability Report).

Content elements
Strategy
Emissions figures

Comment

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

No additional information is relevant for our organisation's response.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1		Please select

Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission
I am submitting my response	Investors	Public

Please confirm below
I have read and accept the applicable Terms